Table 4-1. Product Delivery Record - PVL Parameters

Item No.	Parameter	Description	Type/Format (Maximum/ Length in Bytes)	Value
1	ORIGINATING_SYSTEM	Originator of Product Delivery Record	Variable String/ASCII (20 B)	SAGE III MOC Server identifier (Concise, unique name representing external interface; e.g., "SAGE III")
2	TOTAL_FILE_COUNT	Total number of files to transfer	Unsigned Integer /ASCII (4 B)	1- 9999
3	EXPIRATION_TIME	ISO (UTC) Time for data deletion from originating system. This time is set by the SAGE III based on available resources.	Fixed String/ASCII (20B)	yyyy-mm-ddThh:mm:ssZ, where T and Z are literals
4	OBJECT	Start of file group parameters (repeat for each group of files)	Fixed String /ASCII (10B)	'FILE_GROUP'
4.1	DATA_TYPE	ECS Data Type	Variable String /ASCII (20 B)	Valid ECS Data Types - (g3aexp, g3aexph, g3aexpm, g3aexpc, g3aeph, g3aephh, g3aephm)~~TBS~~
4.2	NODE_NAME	Host/Server name node on which the file(s) resides	Variable String /ASCII (56 B)	e.g.. 'server.larc.nasa.gov'
4.3	OBJECT	Start of file parameters (repeat for each file in file group)	Fixed String /ASCII (9B)	'FILE_SPEC'
4.3.1	DIRECTORY_ID	File directory name (i.e., path name)	Variable String/ ASCII (256 B) (See Note 1)	e.g. /sageiii/group1
4.3.2	FILE_ID	File name	Variable String/ ASCII (256 B) (See Note 1)	file name(per naming convention in Section 5)
4.3.3	FILE_TYPE	File Data Type	Variable String/ASCII (20 B)	'SCIENCE', ANCILLARY, 'METADATA', 'ORBIT',
4.3.4	FILE_SIZE	Length of file in bytes	Unsigned 32-bit Integer /ASCII (10 B)	$<2*10^{9-}$
5	END_OBJECT	End of file parameters (repeat for each file)	Fixed String/ASCII (9 B)	'FILE_SPEC'
6	END_OBJECT	End of file group (repeat for each group of files)	Fixed String/ASCII (10 B)	'FILE_GROUP'

Note 1. Size can vary up to 256 bytes total when DIRECTORY_ID is combined with FILE_ID

EXAMPLE

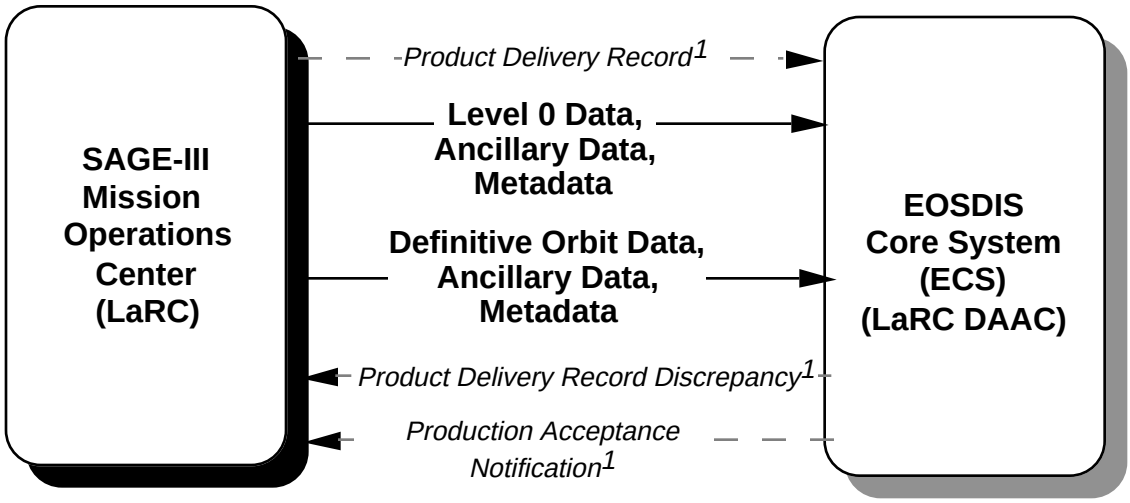
```
ORIGINATING_SYSTEM = LaRC_SAGE_III_MOC;
TOTAL_FILE_COUNT = 4;
EXPIRATION_TIME = 1999-09-25T20:00:00Z;
OBJECT = FILE_GROUP;
        DATA_TYPE =g3aexpmtbd;
        NODE_NAME = l7xsagesvr1.larc.nasa.gov;
        OBJECT = FILE_SPEC;
                DIRECTORY_ID = /level 0/sage;
                FILE_ID = sage3m3_lzm_19990924_v01.01_c01_prod;
                FILE_TYPE = METADATA ;
                FILE_SIZE = 1240000;
        END_OBJECT=FILE_SPEC;
END_OBJECT=FILE_GROUP;

''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''
 ./* Repeat FILE_SPEC objects for each SAGE III Level 0 data file within file group
''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''
OBJECT = FILE_GROUP;
        DATA_TYPE =g3aexpmtbd;
        NODE_NAME = l7xsagesvr1.larc.nasa.gov;
        OBJECT = FILE_SPEC;
                DIRECTORY_ID = /level 0/sage;
                FILE_ID = sage3m3_lzc_19990924 _v01.01_c01_prod;
                FILE_TYPE =METADATA;
                FILE_SIZE =10000 ;
        END_OBJECT=FILE_SPEC;
END_OBJECT=FILE_GROUP;

OBJECT = FILE_GROUP;
        DATA_TYPE =g3aexptbd;
        NODE_NAME = l7xsagesvr1.larc.nasa.gov;
        OBJECT = FILE_SPEC;
                DIRECTORY_ID = /level 0/sage;
                FILE_ID = sage3m3_lzd_19990924_ v01.01_ c01_prod;
                FILE_TYPE =SCIENCE;
                FILE_SIZE =1240000;
        END_OBJECT=FILE_SPEC;
END_OBJECT=FILE_GROUP;

OBJECT = FILE_GROUP;
        DATA_TYPE =g3aexphtbd;
        NODE_NAME = l7xsagesvr1.larc.nasa.gov;
        OBJECT = FILE_SPEC;
                DIRECTORY_ID = /level 0/sage;
                FILE_ID = sage3m3_lza_19990924_v01.01 _c01_prod;
                FILE_TYPE =ANCILLARY;
                FILE_SIZE =01500;
        END_OBJECT=FILE_SPEC;
END_OBJECT=FILE_GROUP;
```

EXAMPLE

Figure 4-3. Example of Product Delivery Record in PVL

5. Data Flow Descriptions

Figure 5-1 identifies the data flows between ECS at the LaRC DAAC and SAGE III MOC. These flows are accomplished via FTP. Descriptions of the data exchange framework supporting these flows are found in Section 4 of this ICD. Specific characteristics of each direct data flow shown in Figure 5-1 are described in Sections 5.1 and 5.2, including data transfer characteristics, format and content ~~(TBS)~~.



Note 1: Defined in Section 4

Figure 5-1. SAGE III MOC - ECS Data Transfer

5.1 SAGE III Data Transfer Profile

Nominally the SAGE III MOC provides ECS two PDRs once a day. One PDR defines the level 0 data, level 0 metadata/construction record and the level 0 ancillary data files which are contained within four separate files. The second PDR defines the definitive orbit data, definitive orbit metadata and the definitive orbit ancillary files which are three separate files. The ancillary metadata is included as a header within the ancillary data file.

5.2 SAGE III Metadata

Within ECS, the term “metadata” relates to all information of a descriptive nature which is associated with the product or dataset. This information has been analyzed and developed into a core metadata model. Product specific metadata is additional information added for the unique characteristics which can be product, collection or site specific. These are described as non-core or product specific attributes.

Within the ECS document (DID) 311-CD-008-004 Science Data Processing Segment (SDPS) Database Design and Database Schema Specifications for the ECS Project detailed information is provided on the types of metadata and the categories of the metadata. The SAGE III MOC provides the ECS with collection level and granule level metadata for each product, i.e., level 0 and definitive orbit data.

Level 0 granule metadata and definitive orbit granule metadata are provided by the SAGE III MOC to the ECS in the form of Object Description Language (ODL) statements. ODL accesses data which is kept in a hierarchical format using GROUP, OBJECT and PARAMETER hierarchy. An ODL statement is represented as “Parameter = Keyword”. ODL only recognizes a character string value when it is in quotation marks. Comments in ODL are enclosed in delimiters as follows: /*…comment…*/. A detailed description of ODL can be found in the Planetary Data System Standards Reference and the University of Colorado Laboratory for Atmospheric and Space Physics: User’s Guide for the Object Description Language (ODL) Processing Software Library, as listed in Section 2 of this document.

5.2.1 SAGE III Collection Level Metadata

Collection level metadata for the level 0 data and definitive orbit data is categorized in the “intermediate” class of the ECS core metadata model. Document 311 defines the mandatory attributes for this class of data. The collection data is considered to be nominally static with only an occasional update. The mechanism to provide this interface between the SAGE III MOC and ECS is via a form located on a predesignated World Wide Web Site ~~(TBR)~~.

5.2.2 SAGE III Granule Level Metadata

The SAGE III MOC provides ECS the granule level metadata comprised of level 0 metadata, level 0 construction record (additional level 0 metadata) and definitive orbit metadata. The three files provided daily are approximately a total of 3 MB in volume.

5.2.2.1 Level 0 Granule Metadata

The level 0 granule metadata attributes - Mandatory and Product Specific are defined in Table 5-1. The maximum size of fields are defined within the DID 311 specification.

The file naming convention for the level 0 metadata file is as follows:

⇒ Level 0 Metadata File Name: sage3m3_lzm_yyyymmdd_vx.xx_cxx_type

Where:

lzm	identifies product = level 0 metadata
yyyy	identifies the year
mm	identifies the month of the year
dd	identifies the day of the month
vx.xx	identifies the version number
cxx	identifies the cycle number
type	identifies the type of product ("test" for the test version or "prod" for production version)

Table 5-1. SAGE III Level 0 Granule Metadata (Mandatory and Product Specific) Definition (1 of 2)

Item No.	ECS Attribute	SAGE Provided Parameter	Description	Type	Value
1	ShortName	Shortname	The short Filename of the Data File	String	~~g3aexpm~~sage3m3_~~lzd_~~yyyymmdd_vx.xx_cxx_type ~~(where type is prod/test)~~
2	RangeBeginningTime RangeBeginningDate	Data_Start_Time	The Year, Day, Time of the first packet in that data set Time First Event	PB-5 Format	Epoch Time
3	RangeEndingTime RangeEndingDate	Data_end_time	The Year, Day, Time of the last packet in that data set - Time Last Event	PB-5 Format	Epoch time
4	SpatialDomainContainer	SpatialDomainContainer		N/A~~TBD~~	N/A~~TBD~~
SAGE III Product Specific Metadata					
5	AdditionalAttributeName	Overflow_flag	When the event goes into the next day	String	Example: Overflow_flag
	ParameterValue				YES or NO
6	Additional AttributeName	TotalEventsNE	The Number of Events for that Day	String	Example: TotalEventsNE
	ParameterValue	Total_NE		Integer	Example: 24
7	Additional AttributeName	TotalEventsSS	The Number of SS Events for that Day	String	Example: TotalEventsSS
	ParameterValue	Total_SS		Integer	Example: 15
8	Additional AttributeName	TotalEventsSR	The Number of Sr Events for that Day	String	Example: TotalEventsSR
	ParameterValue	Total_SR		Integer	For Example: 15
9	Additional AttributeName	TotalEventsMR	The Number of MR Events for that Day	String	Example: TotalEventsMR
	ParameterValue	Total_MR		Integer	Example: 5

Table 5-2. SAGE III Level 0 Data Construction Record Definition (1 of 4)

Item No.	Attribute	Type//Size	Data Characteristics
1	SAGE III Software Version Number	Unsigned Integer/ 2 Bytes	Not Used
2	Construction Record Type	Unsigned Integer/ 1 Byte	1-PDS (Production Data Set) 4-TDS (Test Data Set)
3	Fill/Spare	Unsigned Integer/ 1 Byte	
4	PDS/EDS Identification	ASCII and Unsigned Integer/ 36 Bytes	Not Used
5	Fill/Spare	Unsigned Integer/ 7 Bits	
6	Test Flag	Logical Flag / 1 Bit	Value 0= Operational Data 1= Test Data
7-1	Fill/Spare	Unsigned Integer/ 1 Byte	
7-2	Fill/Spare	Unsigned Integer/ 8 Bytes	
8	Number of Scheduled Spacecraft contact start/stop times	Unsigned Integer/ 2 bytes	Not Used
8-1	Fill/Spare		
8-2	For a particular Spacecraft contact start/stop pair start time	NASA PB-5 Code format /7 Bytes/	Not Used
8-3	Fill/Spare		
8-4	For a particular Spacecraft contact start/stop pair Stop Time	NASA PB-5 Code Format /7 Bytes	Not Used
8-5	For the next Spacecraft start and stop pair, repeat the above items (8-1 to 8-4) if applicable		Not Used
9	Number of bytes of WFF generated Fill data	Unsigned Integer/ 8 Bytes	Not Used
10	Count of packets that had discrepancies between packet header length item and the actual packet length.	Unsigned Integer /4 Bytes	Will use number of CRC errors~~This can be derived from processing after looking into the packet data length field in the source packet primary header and the actual number of Octets in the source field of the packet data field.~~
11	CCSDS binary timecode (CCSDS Day segmented Time Code /Spacecraft Time Format) from the source packet of the first packet received	Integer Formatted /8 Bytes	0:0:0
12	CCSDS binary timecode (CCSDS Day segmented Time Code /Spacecraft Time Format) from the source packet of the last packet received	Integer Formatted/ 8 Bytes	23:59:59
13	Fill/Spare		
14	Date and Time annotation when the first packet was received at WFF	NASA PB-5 Code Format/ 7 Bytes	Not Used~~Can be derived from the WFF QC Header. WFF will be using Julian day Epoch beginning on October 10, 1995.~~

Table 5-2. SAGE III Level 0 Data Construction Record Definition (2 of 4)

Item No.	Attribute	Type//Size	Data Characteristics
15	Fill/Spare		
16	Time and date annotation when the last packet in the whole dataset was received at WFF	NASA PB-5 Code Format/7 Bytes	Not UsedCan be derived from the WFF QC Header. WFF will be using Julian day Epoch beginning on October 10, 1995.
17	For the dataset ,count of packets from VCDUs with errors corrected by R-S decoding	Unsigned Integer/ 4 Bytes	Not Used
18	Number of CCSDS packets in the whole data set	Unsigned Integer/	Can be derived from Processing.
19	Number of bytes in the whole data set	Unsigned Integer/ 8 Bytes	Total number of Octets for all the CCSDS packets in the data set. (Can be derived from processing)
20	Number of packets with Source Sequence Counter (SSC) discontinuities	Unsigned Integer/ 4 Bytes	Number of gaps in the data set. (Can be derived looking at the Source Packet Primary Header)
21	Fill/Spare		
22	For this data set, the time of completion when the whole data set was finished building	NASA PB-5 Code Format/ 7 bytes	This will be the time the data set and the construction record were completed. Epoch Time (TBD) Recommend using WFF Epoch time for consistency (Oct 10,1995)
23	Fill/Spare		
24	The number of APIDs in the Dataset	Unsigned Integer/ 1 Byte	Number of APIDS = 1
24-1	Fill/Spare		
24-2	APID (SCID and APID in the Data set)	Unsigned Integer/ 3 Bytes	APID is = 001
24-3	For this APID, index to the first packet in the data set	Unsigned Integer /8 Bytes	Since SAGE III has only one APID, this will refer to the first packet in the whole data set.
24-4	Fill/Spare		
24-5	For this APID, identify the number of VCIDs in the data set	Unsigned Integer /1 Byte	N/A"000" VC 0 for Modified High Rate Data Format "001" VC 1 for Modified Low Rate Data Format "010" VC 2 for Ancillary Data Format (TBD)
24-5.1	Fill/Spare		
24-5.2	VCDU-ID	Unsigned Integer/ 2 Bytes	SCID is = 1DhSpacecraft ID and VCID. SCID is not defined for SAGE III Refers to a CCSDS packet. (TBD)
24-5.3	For the next VCID, repeat the above items (24-5.1 through 24-5.2)		Not Used
24-6	For this APID identify the number of packets with SSC discontinuities (the number of gaps)	Unsigned Integer/ 4 Bytes	Not Used
24-6.1	For this particular APID identify the first missing packet SSC in the gap.	Unsigned Integer /4 Bytes	SSC number of the packet before the gap
24-6.2	For this APID gap, pointer to the packet, with the same APID, that is immediately after the SSC gap in the data set.	Unsigned Integer/ 8 Bytes	SSC number of the packet after the gap
24-6.3	For this APID gap, the number of packet SSC missed within the gap.	Unsigned Integer /4 Bytes	Derived by subtracting the SSC counter number from Item 24-6.1 from 24-6.2

Table 5-2. SAGE III Level 0 Data Construction Record Definition (3 of 4)

Item No.	Attribute	Type//Size	Data Characteristics
24-6.4	For this APID gap, the spacecraft time stamp that is immediately before the SSC gap in the data set.	Integer Formatted /8 Bytes	Time Stamp of the packet before the gap.
24-6.5	For this APID gap, the spacecraft time stamp that is immediately after the SSC gap in the data set.	Integer Formatted/ 8 Bytes	Time Stamp of the packet after the gap.
24-6.6	Fill/Spare		
24-6.7	For this APID gap, date and time annotation of the packet, with the same APID, that is immediately before the SSC gap in the data set.	NASA PB-5 Code Format /7 Bytes	Ground time of the packet received before the gap. This can be found from the WFF QC Header.
24-6.8	Fill/Spare		
24-6.9	For this APID gap, date and time annotation of the packet, with the same APID, that is immediately after the SSC gap in the data set.	NASA PB-5 Code Format/7 Bytes	Ground time of the packet received after the gap. This can be found in the WFF QC Header.
24-6.10	For the next missing packet SSC (gap) repeat the above items 24-6.1 through 24-6.9		Repeat
24-7	For this APID, number of entries in list of packets containing WFF generated fill data	Unsigned Integer /4 Bytes	Not Used
24-7.1	For this APID, SSC of packet containing WFF generated fill data (SSC from CCSDS packet)	Unsigned Integer 4 bytes	Not Used
24-7.2	For this APID, index (byte offset) into the dataset to the fill packet	Unsigned Integer/ 8 Bytes	Not Used
24-7.3	For this APID, index to the fill octet for the above packet	Unsigned Integer /4 Bytes	Not Used
24-7.4	For the next fill packet identification repeat the above items (24-7.1 through 24-7.3)		Not Used
24-8	For this APID count of octets of WFF generated fill data	Unsigned Integer/ 8 Bytes	Not Used
24-9	For this APID, the number of packets that had discrepancies between packet header length and the actual packet	Unsigned Integer/ 4 Bytes	Will use number of CRC errors~~Can be found looking at the packet primary header field (packet data length) and the actual number of Octets in the source data. This can be derived from Processing.~~
24-10	For this APID, CCSDS binary time code from the secondary header of the first packet in the data set.	Integer formatted /8 Bytes	SAGE III receives time in every packet. So this will refer to the time of the first packet in the whole data set.
24-11	For this APID, CCSDS binary time code from the secondary header of the last packet in the data set.	Integer formatted /8 Bytes	SAGE III receives time in every packet. So this will refer to the time of the last packet in the whole data set.
24-12	Fill/Spare		
24-13	For this APID the ground time annotation when the first packet was received	NASA PB-5 Code Format /7 Bytes	Not Used
24-14	Fill/Spare		

⇒ Definitive Orbit Metadata File Name: sage3m3_epm_yyyymmdd_vx.xx_cxx _type

Where:

epm	identifies the product = ephem metadata
yyyy	identifies the year
mm	identifies the month of the year
dd	identifies the day of the month
vx.xx	identifies the version number
cxx	identifies the cycle number
type	identifies the type of product (“test” for the test version or “prod” for production version)

Table 5-3 defines the content and format for the SAGE III definitive orbit metadata. The maximum size of parameter/value is defined within the DID 311 specification.

Table 5-3. SAGE III Definitive Orbit Metadata Definition

Item No.	Attribute Name	Description	Type	Value
1	Shortname	The short filename	String	~~g3aephm~~sage3m3_epd_yyyymmdd_vxx.x_cxx_type
2	SizeMBECSDataGranule	Size of the metadata	Integer	1
3	SpatialDomainContainer		TBD	N/A~~TBD~~
4	spacecraftID	Spacecraft Name	String	1Dh~~Example: Meteor3M~~
5	ASCIITimeRange	Start stop times to neareast hour or better	String	Example: 1999-04-11T06Z to 1999-04-12T06Z
6	Source	Source of the Data	String	SAGEIIIMOC
7	Version	Version Number	String	Example:1
8	ParentFile	Actual Filename of parent file	String	Example: sage3m3_epd_yyyymmdd_vxx.x _cx.x_type Type will be “prod, or test ”
9	Data_Start_time	Ephemeris dataset start time	Double Precision	Seconds since Jan 1, 1993
10	Data_End_time	Ephemeris dataset end time	Double Precision	Seconds since Jan 1, 1993

5.3 SAGE III Level 0 Data

The SAGE III Level 0 consists of 113 sixteen-bit word data packets that include a five word quality control header followed by 108 words of CCSDS-formatted instrument data. Data packets captured during a Greenwich day are quality-checked and gap-annotated prior to delivery to the ECS. The daily level 0 data delivery consists of instrument data in both science, research, and engineering operating modes in a binary format. The volume of level 0 data provided to ECS on a daily basis is approximately 123 MB.

A five word quality control header is appended to the beginning of each SAGE III instrument data packet upon receipt at the Wallops Flight Facility (WFF). The header follows the format previously used by WFF for the SMEX mission. The header consists of a Version Field, Data Class Field, Frame Data Start Pointer, Annotation Flags, and Earth Receipt Time fields.

Table 5-4. SAGE III Definitive Orbit Data Definition

Item No.	Name	Type	Description
1	Orbit Number	Integer	Orbit number from beginning of mission.
2	Time	Character (25)	CCSDS ASCII Time Code A example: 1988-01-18T17:20:43.123Z('\0')
3	X	Double Precision	X position component of position vector, km
4	Y	Double Precision	Y position component of position vector, km
5	Z	Double Precision	Z position component of position vector, km
6	XDOT	Double Precision	X component of velocity vector, km / second
7	YDOT	Double Precision	Y component of velocity vector, km / second
8	ZDOT	Double Precision	Z component of velocity vector, km / second

Technical details of the SAGE III definitive orbit data format can be found in Meteor-3M / SAGE III Level 0 / Definitive Orbit Data Format Description, LaRC 475-01-021.

5.5 SAGE III Level 0 Ancillary Data

Level 0 ancillary data is provided to ECS is in ASCII/ODL format to aid in the processing of SAGE III level 0 data to a higher level product. The associated metadata is contained in the same files as the ancillary data. The volume of Level 0 ancillary data/metadata provided to ECS on a daily basis is approximately .15 MB. Table 5-5 defines the level 0 ancillary product.

The file naming convention for the level 0 ancillary data file is as follows:

Level 0 Ancillary File Name: sage3m3_lza_yyyymmdd.vx.xx_cxx_type

Where:

lza	identifies product = level 0 ancillary
yyyy	identifies the year
mm	identifies the month of the year
dd	identifies the day of the month
vx.xx	identifies the version number
cxx	identifies the cycle number
type	identifies the type of product ("test" for the test version or "prod" for production version)

Table 5-5. Level 0 Ancillary Data/Metadata Definition (1 of 2)

Item No.	Parameter	Description	Type	Value
1	Shortname	The short Filename	String	~~g3aexph~~sage3m3_lza_yyyymmdd_v.xx_cxx_type ~~(where type is prod or test)~~
2	ParentFile	The Parent Data File name	String	sage3m3_lzd_ yyyymmdd_v.xx_cxx_type
3	Data_Start_Time	The Year, Day, Time of the first packet in that data set	PB-5 format	Epoch Time (TBD)
4	Data_end_time	The Year, Day, Time of the last packet in that data set	PB-5 format	Epoch time (TBD)

5.6 SAGE III Definitive Orbit Ancillary Data/Metadata

As part of the definitive orbit process, an ancillary data/metadata file is created with "bookkeeping" information that is used in later processing. The definitive Ephemeris ancillary data file is an ODL/ASCII data file using with a record describing processed definitive ephemeris for each event. The volume of definitive orbit ancillary data/metadata provided to ECS on a daily basis is approximately .15~~TBS~~ MB. Table 5-6 defines the definitive orbit ancillary data/metadata.

The file naming convention for the definitive orbit ancillary data/metadata file is as follows:

Definitive Orbit Ancillary File Name: sage3m3_epa_yyyymmdd.vx.xx_cxx_type

Where:

epa	identifies product = definitive orbit ancillary
yyyy	identifies the year
mm	identifies the month of the year
dd	identifies the day of the month
vx.xx	identifies the version number
cxx	identifies the cycle number
type	identifies the type of product ("test" for the test version or "prod" for production version)

Table 5-6. SAGE III Defintive Orbit Ancillary Data/Metadata Definition

Item No.	Name	Type	Description
1	Shortname	Character	~~g3aephh~~sage3m3_epa_yyyymmdd_vx.xx_cxx_type ~~(Type will be "prod or test")~~
2	ParentFile	Character 128	sage3m3_epd_yyyymmdd_vx.xx_cxx_type (Type will be "prod or test")
3	Event Type	Character 12	SS, SR, MS, MR, Other
4	Start Time	Character 25	CCSDS ASCII Time Code A ex: 1988-01-18T17:20:43.123Z('\0')
5	End Time	Character 25	CCSDS ASCII Time Code A
6	Orbit Number	Integer	Orbit number corresponding with Start Time
7	Start Record	Integer	Number of records from beginning of file (start counting with 0)
8	Number of Records	Integer	count of records generated for an event
9	Start_lzd_frame	Integer	The start frame from level0 data corresponding to the particular event
10	End_lzd_frame	Integer	The end frame from level0 data corresponding to the particular event
11	Error Flag	Integer	0: normal 1: solution would not converge 2: solution exceeds 500 meter along track requirement 3: solution exceeds 1000 meter cross track requirement 4: solution exceeds 250 meter radius requirement
12	Spare	Character	
13	FDF QC information, reference time for TOD, ...	TBD	

~~Appendix A.~~
~~Work-off Plan for the ECS the SAGE III MOC ICD~~

ICD Issue #	ICD Para. #/ Table #	Issue Priority*	ICD Issue Type - Description	Work-off Plan Task(s)	Projected Resolution Date	Risk Assessment**
1	Table 4.5	B	DATA_TYPE in PDR needs to be defined	Schedule meeting with ECS developers to determine vaild data type values for PDR.	12/96	No impact until IATO, early 1997.
2	5.2.1	B	The mechanism to provide this collection level metadata interface between the SAGE III MOC and ECS is via a form located on a predesignated World Wide Web Site (TBR),	Meet with the ECS development team to determine the method for LaRC SAGE III MOC to provide collection metadata.	10/96	This is a static interface with an occasional update.
3	Table 5-1	B	SpatialDomainContainer	Request Data Engineers to determine if the attribute is necessary	9/96	Needed for implementation of metadata files
4	Table 5-2	B	Need to identify number of VCIDs in the data set Need to determine SCID	SAGE III MOC will provide information	9/96	Needed for implementation of Cons. Rcd
5	Table 5-5	B	Need to determine what Epoch time will be used for L0 ancillary data	SAGE III MOC will provide information	9/96	Needed for completion of Ancillary product development
6	Table 5-5	B	Need to determine CCD Map	SAGE III MOC will provide information	12/96	Need for ancillary data checkout
7	Table 5-6	B	Need to determine QC Info	SAGE III MOC will provide information	10/96	Need for ancillary data checkout

* Issue Priority Definition:
A = Design impact; e.g., unresolved interface.
B = Minimal design impact; e.g., content or format of a specific field unresolved.
C = No design impact - administrative detail; e.g., reference document # not available.

** Risk Assessment Definition:
- Risk if issue is not resolved by projected resolution date